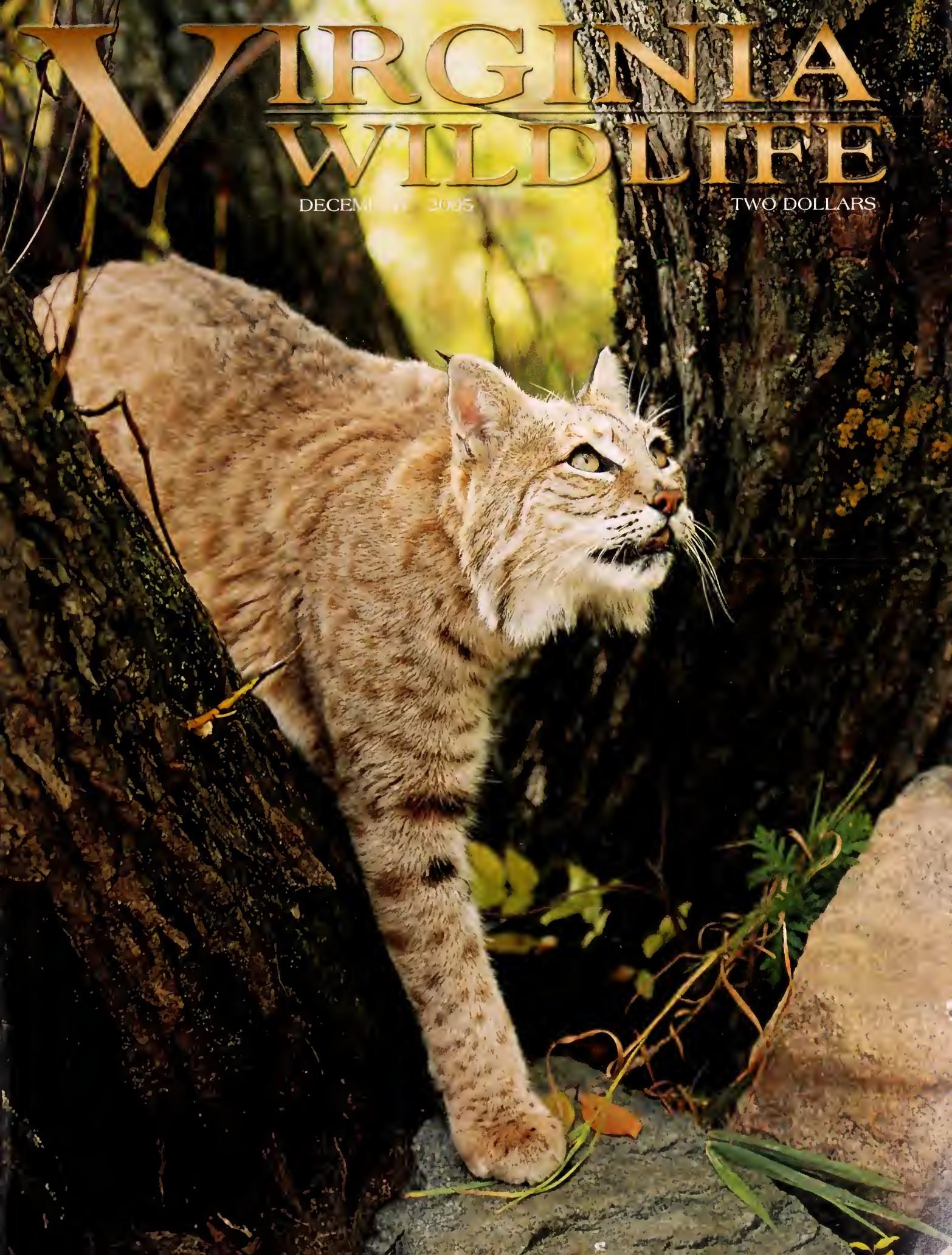


VIRGINIA WILDLIFE

DECEMBER 2005

TWO DOLLARS





Colonel W. Gerald Massengill

Interim Director

It's hard to believe that another year is drawing to a close. Like any other business, over the year the Virginia Department of Game and Inland Fisheries has had its challenges and accomplishments in doing our job, managing Virginia's vast diversity of wildlife. It can also be said that 2005 was a year that tested our country with natural disasters that destroyed the lives of millions of people and had a tremendous impact on wildlife and fisheries.

At the same time, this country has seen an unprecedented outpouring of support to help those who have lost so much. I am proud to share with you that the Department, along with other state agencies and private organizations, assisted in disaster relief efforts by deploying several teams of dedicated law enforcement professionals to some of the worst hit areas in Mississippi.



Below are a few pictures that were brought back by Virginia game wardens. They show some of the devastation suffered by these people and communities, but that isn't all I see in them. These pictures remind us of the strength and hope there. Our game wardens reported that over and over again the people they encountered expressed gratitude for the support of Virginians and others and that they are looking to the future with optimism because of the help they have received. It is reassuring to know that as Americans we will pull together to comfort and to help one another during difficult times.

As I prepare for this holiday season I can't help thinking about how fortunate the Department is to have the support and friendship of so many of you. On behalf of all of us at the Virginia Department of Game and Inland Fisheries I would like wish you a safe holiday season and a happy new year.



While on patrol in Mississippi, game warden Kris Dougherty makes friends with a local resident who's home survived Hurricane Katrina. She had opened her home and heart to those less fortunate.

Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

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Mark R. Warner, Governor

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About the cover:
The bobcat (*Lynx rufus*), named for its short (bobbed) tail, is found throughout Virginia. It is a very secretive animal spending much of its time hunting at night for small animals to feed on. If you spend time in the outdoors the only sign that you may see that a bob-

cat has been in the area is from the tracks that it will often leave in soft soil, sand or snow. On an average, bobcat tracks are 1½ X 2 inches and show four toes on the front foot and four toes on the hind foot. Like the common house cat the bobcat does not show its claws in its tracks because they are retractable.

©Bill Lea



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WILDLIFE**

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Take A Kid Fish

by Tee Clarkson

With 2006 just around the corner why don't you do yourself a favor and begin the new year off right by promising to introduce a youngster to the joys of fishing.



Before "Bass Saturday" on ESPN2, "Fridays in the Wild" on OLN, or The Outdoor Channel, there was Franc White, "The Southern Sportsman." When I was a kid I watched religiously as Franc piled into the zebra-striped jeep and headed to his favorite fishing hole or hunting spot. What I remember most about Franc's show all these years later is not a fish he caught or any of the recipes from the cooking portion of his show, but how he signed off at the end of each week:

"Do yourself a favor, take a kid fishing."

At the time I was too young to understand exactly what Franc meant. I was a kid, and I wanted to go fishing. Fortunately my father was more than happy to oblige my two brothers' and my interest in the outdoors. Nearly every Saturday we loaded into our Jeep Wagoneer, which unfortunately was not zebra-striped, although if we could have gotten our hands on some white and black paint it very well may have been, and



declined across the United States. Reasons for this decline vary from increasing work obligations, high gas prices and limited access of places to fish. Fishermen take care of the fish and the fish habitat, and as the number of fishermen decrease, so will the fish populations and the health of our waters. Perhaps the single most im-



©Dwight Dyke

Above: Scott Key of Richmond found that getting wet and up close to the fish that he was catching added additional thrills to his angling adventure. Below: Six-year-old Mallory Odell shows off a nice James River bluegill.

portant thing we can do for our fish and our environment is to introduce our young people to them.

Last summer I learned firsthand, not what it was like to take a kid fishing, but what it was like to take 17 of them fishing over the course of several weeks of fishing camp. Although stressful at times, the experience shed more light on what Franc preached all those years ago, and for the first time I really understood what he meant. Watching a

9-year-old reel in a flathead catfish half his size, seeing kids rake in hand sized bluegill by the dozens, and witnessing four kids holding the edges of a cast net and dropping it over bait-fish in a small farm pond, I learned as much about what makes a successful fishing trip for a kid as the kids did about fishing.

So as the ground begins to thaw and the waters warm, consider leaving behind the job obligations and making some time to get out on the water with a young person this coming spring. No matter what your level of fishing knowledge, the following tips will help ensure a successful fishing trip with the kids this year.

Success is Key!

Before you get too stressed out about having to catch a bunch of fish to make for a successful fishing trip with kids, consider that kids usually have a much different idea of success than adults do. A few bluegill or a croaker or two can make for a great day of fishing as long as kids are entertained. Don't worry about size either. Anything wiggling in a palm or toying with the bait at the end of the line is a thrill. That being said, it is still important to catch those few fish. Heading out on a large reservoir in February to pull a pig and jig through cover at 30 feet deep is likely not going to interest a 9-year-old. Find a small farm pond or lake where you can fish from the bank and catch a few fish.

Use Live Bait

Kids are often as intrigued by the bait they are using as they are by the possibility of catching a fish. Not only does live bait work well under most circumstances, but it is fun. Worms, crickets and minnows work great in freshwater. You might even take it a step further and dig up some worms in the backyard or catch some crayfish or hellgrammies from a stream. Kids will often find this as fun as the actual fishing, and they are learning valuable lessons about the food chain and how nature works.

Fishing

The author shows off a flathead catfish caught by one of the campers at a Virginia Fishing Adventures Fishing Camp. Left to right: Gibson and Bender Vaught, Tee Clarkson and Bayliss Brown. Lower left: Alley Odell of Henrico County was all smiles with each fish she caught.

headed to our favorite farm pond. Nothing I have learned or done since has had greater effect on me or my life as those first days I spent on the water with my father and my brothers.

Sadly, over the last decade the number of people who fish has



©Dwight Dyke

Equipment

Choose equipment that is kid friendly. Push button reels and unbreakable rods are inexpensive and easy to use. The more a kid can do for

sects in shallow water with cast nets and seines is great fun. Some kids will like this as much or more than they do fishing, especially if the fish aren't biting. These are also great ways to learn about the ecology and

health of the water you are fishing, as well as how to identify different species of fish and insects.

Don't Fish

What? Yes, I said it. When introducing kids to fishing, don't plan on doing a lot of fishing yourself. In fact, I find it best not even to take a rod. What is important when introducing kids to fishing is that they have a good time. If they have a good time, you will too. It is too easy to get distracted when you are trying to fish and lose track of whether a kid is having a good time or not. Are they bored? Is now a good time to pull out the cast net? Do they need more bait? Is their line tangled? These are the types of things that are easily overlooked when you try and fish yourself. The days when you can both fish will come if everyone has fun when you go.

There is nothing quite like the smile of a child after they have caught a fish. Many kids are just a fishing trip away from a lifetime of lessons on patience, persistence, and an appreciation of the natural world. The world needs fish and fish need fishermen. Whether it's your son or daughter, your niece or nephew, or your neighbor's child down the street, "Do yourself a favor, take a kid fishing." □

themselves, the more fun they will have and the greater their sense of satisfaction when they see a fish dangling from the end of their line. Remember, there is nothing like the thrill of finding a fishing pole and tackle box full of surprises under the Christmas tree or as a holiday gift. You might want to even consider going one step further by purchasing that new angler a lifetime fishing license. This is one gift that will keep giving for a lifetime and will offer hours-and-hours of joy and excitement.

Alternate Activities

Let's face it, sometimes the fish don't bite. Even when they do it's nice to have some alternate activities to maintain kids' interest. Two to three hours of fishing over the course of the day is enough for most kids, but they might enjoy staying longer if there are other things to do.

Catching
small fish
and in-



©Dwight Dyke



Above: Need a reason to take a child fishing? How about the big smile from 10-year-old Tyler Valasek who, with the help of his dad Joe, managed to catch this 9.13 pound, 26 1/2-inch largemouth bass, while fishing a pond near their home in Hanover County. Or the look of amazement on 22-month-old Logan Deese's face (lower left) as he lands his very first fish while out with his grandparents on Chesapeake Bay, near Hampton.



Tee Clarkson is an English teacher at Deep Run High School in Henrico County. In the summer he runs Virginia Fishing Adventures, a fishing camp for kids. For more information you can contact Tee at: tsclarkson@virginiafishingadventures.com.

Angling Opportunities

The Department of Game and Inland Fisheries offers workshops on fishing, a list of all fish in the state of Virginia and how to identify them, as well as a directory of public waters throughout the state and how to get to them. They provide a wonderful resource for people of all ages and abilities. Check out the Web site at [www.dgf.virginia.gov](http://www.dgif.virginia.gov) and go to Fishing.

Late season Bushytails

Wrap up this hunting season on a positive note with a late season squirrel hunt.

by Bruce Ingram

In the outdoor magazine realm, many writers find it customary to begin their stories with action leads, detailing how they or one of their subjects killed a big buck or turkey or caught an impressive bass or trout. As a contrast, let me detail how three straight encounters with Virginia's late season squirrels this past January sent me home with empty game bags.

On one outing, I glimpsed a squirrel as soon as I entered the woods, but the animal went scudding away—permanently—as soon as it heard my boots crunching against the hard packed mixture of ice and snow. On another excursion, I spotted a silvertail about 75 yards away, but I was unable to still-hunt successfully to close the gap between the quarry and myself. The last time I saw the squirrel (before it disappeared into a thicket) the creature was 5 yards further away from me than when I started after it.

And on my third misadventure, howling winds, 20-degree temperatures and biting snow resulted in my not seeing any bushytails at all. Although I did manage to jump one woebegone bunny. Yet, on all those trips, and the others that I took last winter, I did experience a certain

If you can find red oak acorns late in the season, chances are you will find squirrels. And, if you are willing to sit tight and not move, you will more than likely see squirrels leaving their secret lair to feed.



©Bill Lea

emotion—the joy of being afield when the woods are often cold and dark, and the joy of the simplicity of squirrel hunting. Thank goodness that there is no such thing as a trophy squirrel and that no need exists for scent control and elaborate camouflage. And finally, the joy of bringing home to the crockpot a small game animal that tastes mighty good for dinner on a frigid winter night.

For me, January Saturdays mean two things: watching the football on television and squirrel hunting, and I arrange my schedule around those two events. Here are some relevant points to know if you take up the challenge of pursuing Virginia's wintertime squirrels.

Know the Wintertime Food Sources

Patrick Cook, small game biologist for the Virginia Department of Game and Inland Fisheries, details the food sources.

"Often, not all acorns are gone during December and January," says Cook. "In particular, red oak acorns will often persist into late winter. This is because they have a high tannin content, which discourages their use. The tannin content decreases as winter progresses, and they are more sought after by squirrels and other wildlife. Also, squirrels cache or 'scatter horde' large amounts of food in the fall. Not only do they cache acorns, but also hickory nuts (their fa-

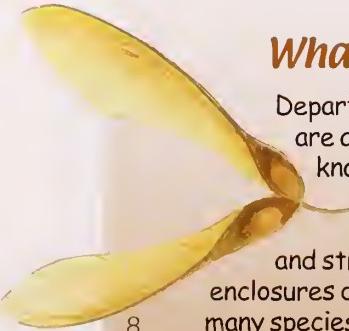
vorite food), walnuts and even maple samaras.

"These food items are typically buried in the ground and sometimes stored in tree cavities. This cached food typically constitutes the majority of their winter diet. Other foods during this time include pine seeds, dogwood mast, buds, insect larvae and fungi (eaten year-round). If squirrels are hungry enough (such as during years of mast failure), they'll eat tree bark, particularly the inner bark of maple and elm. One interesting tidbit is that mass movements of squirrels have been reported during years of complete mast failure."

Know the Wintertime Haunts

Knowing the wintertime foods helps us understand where to find squirrels during this season. As Cook notes, squirrels cache their food in tree cavities—typically found in mature hardwoods. These animals will often spend the night in these same cavities or in other holes in the same or nearby trees. The early morning and late evening periods are often ex-

What Are Samaras?



Department wildlife biologist Patrick Cook notes that samaras are an important food source for squirrels. Samaras, also known as keys, are the double wing-like extensions (each of which contains a seed) produced by members of the maple family. In the Old Dominion, red, silver, sugar and striped maple trees all engender samaras. These seed enclosures do not split open when they are ripe, but squirrels—and many species of birds—have no problem extracting the seeds.



©Bruce Ingram



©Bruce Ingram

Top: Virginia Department of Game and Inland Fisheries wildlife biologist Pat Cook says that squirrels will feed on fungi, like this growing on a red oak, year round.

Above: A gray squirrel gleaning the December and January forest floor may be able to find such late season foods as grapes, dogwood berries and the random red oak acorn.

cellent times to take a stand in hardwood hollows as the squirrels either emerge from or enter cavities. Often a brief flurry of foraging on the ground will take place after they exit and before they enter these holes.

But outside of these two low light periods, I don't like to spend time pursuing squirrels in hardwood hollows during the late season. I see many more silvertails in pine stands now. As Cook relates, pine cone seeds are important wintertime foods, and I prefer to still hunt along the edge where a pine grove borders a hardwood stand or hollow, a stream bottom or a clearcut.

When squirrels gnaw on pinecones, a very distinct, raspy noise results. Listen to this sound and scan the treetops for the source. Also of note is that squirrels when feeding

in such pines as the white, Virginia and pitch species, those are some of the few times when they will be aloft. I see many more bushytails foraging along the forest floor than above ground. For instance last January, I shot one squirrel that was rummaging around on the ground in a mixed red cedar and Virginia pine thicket. Another was taken while digging in the duff along the edge of a hardwood hollow and pine stand. For an animal that spends much of the year in open woods and in the treetops, the wintertime seems to be a period when squirrels will scavenge for food on the ground in relatively dense cover.

Know the Breeding Habits

According to the Peterson book, *A Field Guide to the Mammals*, squirrels, in the South, primarily breed in June and December, and in the North, primarily in January and February and July. Several times in December, I have witnessed males chasing and then breeding females. Two Decembers ago, for instance, I watched as one aggressive male pursued a female up and down three trees before the mating act took place. Cook has information relevant to Virginia.

"Gray squirrels may breed during any part of the year," he says.



Bring Along a Call

Squirrels are probably at their least vocal during the wintertime. Nevertheless, I like to employ a call, particularly when I am still hunting. Make the cuck-cuck-cuck sound and follow that up with the wheezy chirr. Then scan the treetops in order to hopefully spot a bushytail emerging from a cavity.

"However, the two main breeding seasons are typically December to March (peaking in February) and May-August (peaking in July). In a study conducted in Virginia, 81 percent of all squirrel litters were born in either February-March or July-August."

Old Dominion sportsmen should be alert to squirrel reproductive habits during the wintertime. This is an excellent opportunity to still hunt closer to the animals.

Know the Hunting Tactics

Which leads to the next point, which is the best hunting tactic now; stand or still-hunting? As noted earlier, I prefer to stand hunt during low



©Bruce Ingram



Elaine Ingram's Crockpot Squirrel Recipe

Place cleaned squirrel in crockpot.
Combine one 10 1/2-ounce can cream of celery soup with one can of water.
Pour over meat.
Add slices of carrots, potatoes and onions.
Salt and pepper to taste.
Cook on low for 8 to 10 hours.

light conditions and during one other time—when hard packed snow and ice blanket the ground. Perhaps because wintertime squirrels are survivors, perhaps because the woods and even the thickets are much more open now, I find it exceedingly difficult to sneak close to feeding squirrels when every step causes loud, crunching sounds to erupt across the white landscape. The exceptions are when powdery snow has freshly fallen or when the white stuff has begun to melt and become slushy in consistency. Those are superlative conditions in which to still-hunt.

Another excellent period to still-hunt is the warmest time of that day, whenever that is. For example, last winter I learned from a Weather Channel forecast that a cold front was approaching Southwest Virginia in early to mid afternoon and that the temperature would peak in the mid 30s in mid morning. I went hunting at that time and witnessed a burst of squirrel feeding activity. Later I went back out to hunt late that evening—normally a phase of intense squirrel movement—and saw no silvertails, as the temperature had plummeted into the teens.

Know Your Gun Choices

The two logical choices for late season squirrel guns would have to be a scoped .22 rifle and a 12-gauge shotgun, yet I prefer—illogically—a 20 gauge. A .22 is a marvelous option for when squirrels are feeding high in the pines or foraging along the ground 50 or so yards away. And a 12 gauge, fueled with high brass No. 6, will reach out a solid 35 yards.

But after toting a rifle or a muzzleloader during the various deer gun seasons and a 12 gauge during the spring and fall turkey seasons, I just like the feel and the lightness on the shoulder of a 20 gauge, knowing that I will have to restrict my shots to less than 30 yards.

The Joy of It All

One Tuesday afternoon, this past January, I rushed home from work, donned some hunting garb, and went squirrel hunting on the 29-acre parcel my family and I live on in Botetourt County. I set up on the edge of a red cedar and Virginia pine thicket that borders a hardwood hollow and about 30 minutes before sunset, I saw a squirrel emerge from an oak cavity and head for the evergreens.

The bushytail began feeding away from me as it jumped from tree to tree, so I made the decision to still hunt after it in the mushy snow. Fifteen minutes passed before I could squeeze off a shot, just as the squirrel paused on an outstretched cedar limb before taking another leap.

After I had arrived back at the house and cleaned the silvertail, I called my dad and invited him over for squirrel cooked in a crockpot the next day for supper. I heard my dad laugh over the phone and then listened as he told me what joy his mother and father would exhibit when, as a boy growing up during the Great Depression in Franklin County, he would kill a squirrel for a wintertime dinner. It's a joy that can still be had today. □

Bruce Ingram is a schoolteacher and outdoor writer/photographer from Southwest Virginia. He has authored numerous books, which include *The James River Guide, Fishing and Floating Virginia's Finest and Fishing the New River*.



WALKING THE LINE

LIFE ALONG
THE TRAPLINE
STILL OFFERS
A UNIQUE
OUTDOOR
EXPERIENCE.



©David Hart

by David Hart

Trapping has been an important part of Virginia's heritage. It still is.

Every day from mid-November to the end of February, Neal Saunders rises before dawn, climbs into his Dodge pickup and drives the rural roads of central Virginia. Saunders is a trapper, and on a typical day, he may have more than two-dozen sets scattered along creek beds, ponds and woodland trails. His work doesn't end when he's finished checking his traps for the morning. When he's finished, Saunders heads to his full-time job as a builder.

"We go at it all day on Saturday and Sunday during the season. My partner and I will meet before daylight to get our gear ready and we are usually setting or checking traps right at first light," says Saunders. "At dark, we work on skinning or fixing up equipment."

For his tireless seven-day-a-week part-time effort, the 44-year-old Buckingham County resident earned a little over \$3,000 last winter. Add up

Above: It can take years to become a skilled trapper. Bill Gillen, setting a trap for fox, started when he was only 5 years old and admits that he still doesn't know all there is about trapping. Left: Sam Poles, a trapper from Northern Virginia, holds up a trio of prime red fox hides at the Virginia Trappers Association fur sale in Farmville.



the gas, supplies and other necessary expenses and you might wonder why he bothers.

"I'm afraid to even think about it," he laughs. "I bet we spent close to double what we brought in."

But Saunders doesn't trap for money. The countless hours he and his partner Bill Gillen devote to their favorite pursuit is done purely out of love of the outdoors and the thrill that comes with finding a good catch—and otter, a mink or perhaps a bobcat—in one of their sets.

Although trapping has fallen in popularity among Virginia's sportsmen, people like Saunders and Gillen, who works at Hampden-Sydney College near Farmville, are very much a part of the small but tight-knit community of trappers throughout the state. At one time, during the peak of fur prices both in the United States and abroad, the Virginia Trappers Association (VTA) boasted a membership roster of about 5,000 people. Now, that number hovers around 600, according to the Virginia Trappers Association president Bryan Nelson, and about 1,200 trapping licenses are sold in Virginia each year.

Trapping, as Saunders discovered when he first started nearly 30 years ago, isn't a pursuit taken lightly. State regulations require that all traps be checked every 24 hours, no matter what the weather. The two friends have fishtailed down snow-slicked roads in central Virginia and stomped through inch-thick ice to get to their traps. Bitter cold mornings, mild afternoons and every other type of weather that falls on central Vir-

Neal Saunders sets a beaver trap in Powhatan County. He and partner Bill Gillen received a call from a landowner who was losing numerous trees on his property to beavers.

©David Hart



Neal Saunders carries a trio of beavers out of the marsh. Catching them is only the start of a long day of work. The furs then have to be carefully prepared in order for them to bring Saunders the best price possible when taken to market.

ginia is just part of the experience. Despite the sometimes wretched conditions, the 24-hour rule is one that Saunders and Gillen gladly abide by.

"Every time I go to check my traps, it's just like Christmas morning. I never know what I'm going to catch, or even if I'm going to catch anything, so it's a surprise every time," says Saunders. "That's one of the best parts about it."

Gillen agrees and says sleep doesn't come easy after a day of setting on new ground. The anticipation of checking those traps the next day sometimes pulls him out of bed at 3:00 or 4:00 a.m. in the morning as visions of fox, otter or bobcat swirl through his mind.

It takes more than luck to catch something as wary as a raccoon or fox. Not only does the trap have to be placed in exactly the right spot, it has to be covered in such a way that it will close properly.

"I don't mind getting up real early. When I do, I go out to the skinning shed and work up furs until it's light enough to go check traps. Then I'll go check either on my own or I'll meet Neal and we'll check them together," he says.

While some traps held a "lump of coal" last season, Saunders and Gillen had their best year ever last winter. The two partners caught 120 beavers—once on the brink of extinction in Virginia and the rest of the country—about 200 muskrats, 60 foxes and 30 otters. While fur prices have been depressed over the last decade or so, otters turned out to be a windfall, averaging about \$100 each at the Virginia Trappers Association fur sale held in Farmville last March. Gillen and Saunders also caught seven bobcats, undoubtedly the most difficult furbearer to catch in the state.

All those furs, however, require an incredible amount of time and effort before Gillen and Saunders can sell them. Both men head straight for the small shed next to Gillen's house after spending the day at their full-time jobs. Often without a break for dinner they work on furs sometimes until midnight. One of the two will skin while the other cleans up the pelts and pulls them on a wire or

wood stretcher. While Gillen can skin and stretch a muskrat in a matter of minutes, one beaver can take nearly an hour. For that work, Gillen and Saunders earned an average of less than \$15 per beaver at the fur sale. Still, they wouldn't trade the back-breaking work for the world.

"A lot of people who want to try trapping get discouraged when they realize just how much work goes into it. Not only do you have to set the traps and check them, you have to skin your catch, stretch it and dry it, and then take it to a fur sale or send them off in order to sell them. It's an incredible amount of work that doesn't pay all that well. You don't do it for the money," insists Saunders, who grew up in Roanoke County and eventually moved to Buckingham where he runs a contracting business.

Like so many other trappers, Saunders learned the skills necessary for success on the trap line from a high school friend willing to share what he learned from others. Gillen credits his father for his love of the outdoors and trapping. He and his dad tromped through the marshes of New Jersey when Gillen was a boy—he started when he was five—chasing muskrats, raccoons and beavers. That's the way most trappers learn,



©David Hart



©David Hart

John Epler, a fur buyer from Pennsylvania, studies a beaver hide at a fur sale in Farmville last March, before he decides how much he will pay for it. The Virginia Fur Trappers Association sponsors the annual fur sale.

from a friend, a father or some other veteran willing to share information.

"That's one of the great things about trappers. We never hold anything back when it comes to our successes and failures. We don't always let others in on where we trap because we'd prefer to keep our territories to ourselves, and we don't always share our best-kept secrets. But if someone wants to learn how to trap or if they want to learn more and I can teach them what I know, I'll do everything I can to help. Every trapper you meet is that way. They are all willing to share what they know," says Saunders.

Trapping, even more than fishing or hunting, requires an enormous amount of knowledge, not just about the general habits of the animals and the sign they leave behind, but about the equipment necessary to catch those animals, as well. There are countless trap styles and sizes, and each one works better than the others under specific situations. In order to draw a raccoon, bobcat or some other fur bearer to the trap, it's also essential to use the right bait or lure. Both Gillen and Saunders went through the learning process that every trapper goes through, but as they spent

more time in the woods and marshes each winter, their catch rates started to increase. They still walk up on undisturbed traps or traps that were set off but failed to catch their quarry. That's part of it. Gillen and Saunders are quick to suggest that they wouldn't receive nearly as much satisfaction if they caught something every time they buried a trap.

"If it was too easy, I wouldn't do it. One reason I like it so much is trying to outwit the animal I'm trying to catch," says Gillen. "I like learning every time I check my traps, also. I think I learn more when I miss an animal than when I actually catch one."

That dedication necessary to becoming a successful trapper is one reason fewer people are taking up the pursuit. Access to private land for virtually any type of outdoor recreation is diminishing, as well. But Saunders and Gillen agree that trapping has not only opened doors for their favorite pursuit, it's been a great way to add more deer hunting land to their portfolios.

"I've got plenty of places to hunt because once I get to know a landowner through trapping, they see that I'm responsible and that I'll treat their land with respect," says Gillen. "While not everyone welcomes me as a trapper, lots of people have gotten tired of beavers cutting down their trees around their ponds, or plugging up storm drains, or they

are losing chickens to the local foxes. They are glad to have me come in and trap."

Gillen isn't alone. A cottage industry of animal damage specialists has turned up all over Virginia as beaver populations in particular continue to rise. Gillen and Saunders trap almost all year as homeowners, farmers and developers call on their services to rid their property of beavers. They couldn't be happier.

As long as there are beaver, fox, coyote and raccoons in Virginia, there will always be dedicated trappers like Bill Gillen and Neal Saunders out in the woods testing their wits against the state's furbearers. Win or lose, Virginia's trappers are just glad to be out there. □

David Hart is a fulltime outdoor writer and photographer from Farmville. David is a regular contributor to Bassmaster, American Angler, Bass Pro Shops Outdoor World and many other national and regional publications. He is the author of Fly Fisher's Guide to Virginia, Including West Virginia's Top Waters (www.wildadv.com).

WANT TO LEARN MORE?

The Virginia Trappers Association offers free instructional classes held at various locations throughout the state. For a complete schedule, or for more information on the VTA, visit their Web site at www.virginiatrappers.org.



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Animal Tracks

by Carol A. Heiser and Spike Knuth

illustrations by

Willy Wilmoth and Spike Knuth

Ever notice how difficult it is to see wildlife up close? Unless one has access to an observation blind, a tree stand, or a window overlooking a nature preserve, most of us can recount only fleeting glimpses of animals as they slither, hop or run away. A far easier way to discover wildlife is by learning to identify the tracks they leave behind.

However, in order to find and identify individual tracks, you will first need to become good at observing other forms of animal signs, because these can be a very useful kind of "roadmap" in your search for footprints. As you hike and explore a field, look for well-worn travel routes like trails and

runs where animals move in and out of various habitats on a regular basis. For example, a deer trail in the woods might lead you to a feeding area or watering area; a muskrat run in a marsh might connect to a bedding area or another trail.

Observe the vegetation as you move through these areas. Make a note of patches of leaves or stems that have been nibbled along the way, plants that have been pushed aside or trampled, small branches that have been broken



off, or telltale debris like the shells of acorns and hickories. Keep an eye out for rubbings on tree bark, bits of fur caught on twig ends or feathers on the ground, small holes dug in the leaf litter, and patches of bare earth where the leaf litter has been scratched away. Scan for animal droppings, called "scat," especially around fallen logs, near streambanks, and other places where wildlife might be feeding.

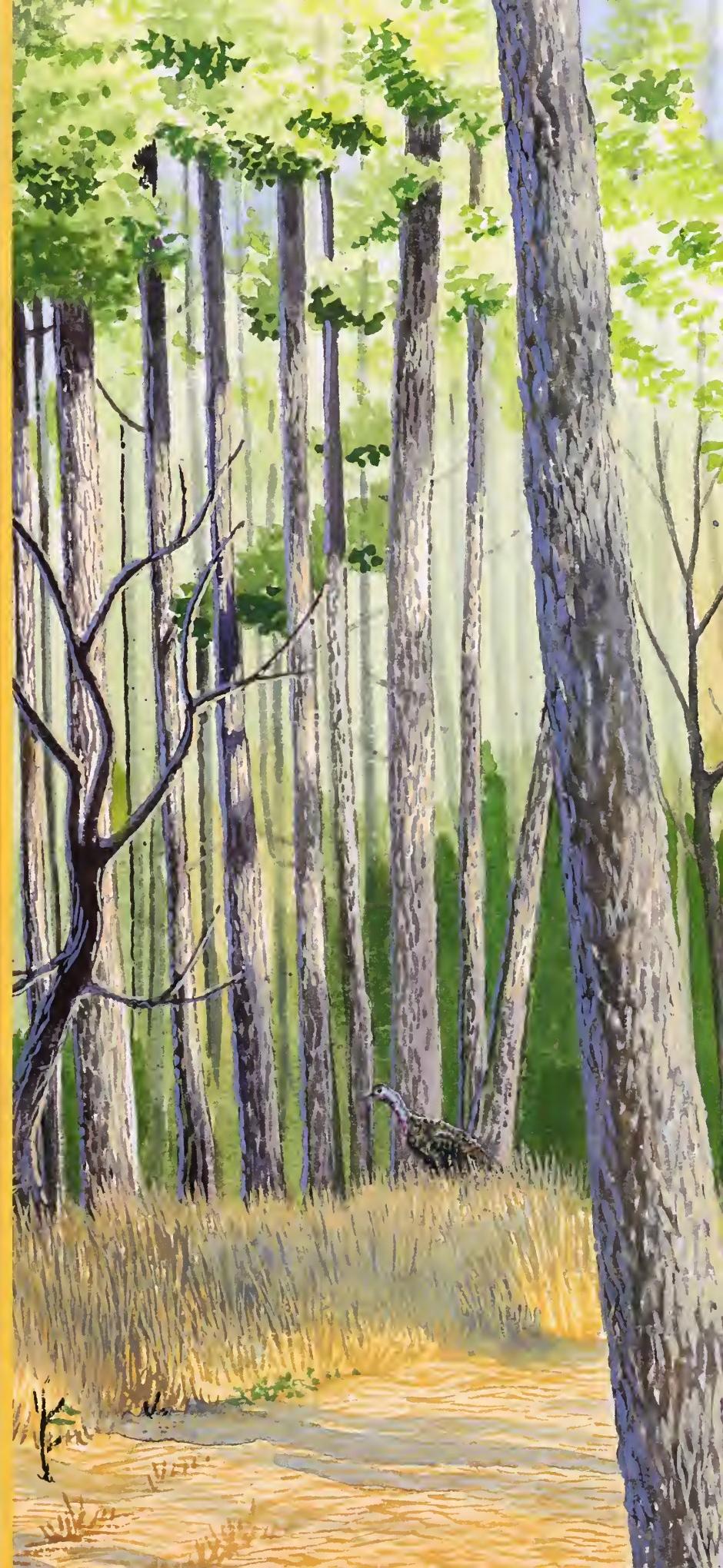
Wherever you find these animal signs, there are bound to be tracks in the immediate vicinity. As one might expect, the best places to observe signs of wildlife are in areas where habitat types overlap, such as where a forest opens onto a meadow or marsh, or a stream passes through fields and woodlands. These are places where wildlife diversity will be greatest and where you can expect mammals to leave tracks. When a habitat reveals the tracks of one species, use that clue as an indicator of other wildlife species that are also likely to be found in association there.

Hardwood Swamp Habitats

Virginia has a rich natural heritage graced with numerous ecological communities. These communities are assemblages of plants and animals that co-exist and interact in the unique context of the surrounding physical environment where they occur. How these communities are classified depends primarily on the type of vegetation found there and, to a lesser extent, on the wildlife species present. For example, "hardwood swamp" habitat in the Coastal Plain could refer to seasonally flooded deciduous forests comprised of bald cypress, swamp tupelo and red maple in the canopy, with red bay and sweet pepperbush predominant in the understory. In the Piedmont, however, a hardwood swamp habitat would be characterized by pin oak, willow oak, green ash, red maple and sweetgum. Shrubs might include deciduous hollies, common elderberry, silky dogwood and American hornbeam. But although the plant composition in these swampy habitats varies from one region of the state to another, there is nevertheless a wide variety of wildlife species that you can expect to find in these settings. Among the wildlife that frequents this area, you can probably expect to find the tracks of black bear, river otter, muskrat, beaver and the great blue heron.

Pinewoods Habitat

Similarly, "pinewoods" habitat is a broad grouping which could describe a loblolly pine savanna as well as longleaf pine or mixed pine flatwoods of the Coastal Plain. In this setting, we might find the tracks of common species like white-tailed deer, wild turkey, opossum, raccoon and woodchuck. Of course, this is not to say that the wildlife species illustrated in this publication couldn't be found in both hardwood and pinewood habitats, because the habitats are not exclusive. Rather, it is the key features *within* the habitat that helps us narrow down the possibilities of what tracks we might find.





Beaver

Castor canadensis

The beaver is a large rodent, with an adult reaching 4½ feet in length, and weighing from 26 to 90 pounds. Beavers are noted for building dams made of tree branches, vegetation and mud, forming impoundments on creeks or rivers. Here they build lodges of the same materials. Sometimes they will build a large lodge along a lake or pond shoreline. It has reached nuisance status in many areas.

Their large webbed hind feet are used for supporting the body when standing and are specialized for swimming. A large, horizontally flattened tail is used as a propeller and as a warning signal by slapping it on the water's surface. Beavers are able to stay underwater for up to 15 minutes. It can grasp food and construction material with its hand-like front feet. Beavers eat soft aquatic vegetation, aspen, alder, willow and others. They walk slowly and cautiously, but run with a slow galloping gait when disturbed on land.

Front foot is 2½ X 3½ inches, five toed. Hind foot is 5½ X 7 inches with five webbed toes, and 16 inch stride, and toes inward. The flat, scaly tail drags and this broad mark plus the wide, webbed feet make its track unmistakable.

Illustrations by Willy Wilmot



Canada Goose

Branta canadensis

Migrating flocks of Canada geese have thrilled mankind for generations, signaling both the beginning of spring or fall.

When the honking calls drift down from the skies, we strain to catch a glimpse of the vee-shaped flocks.

While this is true of migrant geese, geese that actually breed in Canada, we now have geese year round in the form of what we call resident Canada geese. Now we see geese in parks, farm or subdivision ponds, fish hatcheries, corporate landscapes and golf courses. Here they nest as well as loaf and feed. Their honking calls can be heard in all months of the year. Their white cheek patch is distinctive.

Geese are mainly grazers, favoring grasses as food, although they will feed on grains, especially corn, wheat in its grass stage, and aquatic vegetation. Unfortunately, it has become a pest by making a mess, leaving their droppings or stomping down lawns in the parks, ponds and golf courses.

However, the calls of resident and migrant geese alike still thrill us each year as one of the most recognizable sounds of the wild.

The big webbed feet, often pointed a little inward, are unmistakable.



Black Bear

Ursus americanus

Black bear populations have increased and their range has expanded in recent years. Bears are showing up in places they haven't been seen in years.

Black bears are omnivorous, meaning they will eat just about anything. Only a small portion of its diet consists of animal matter. Grasses, fruits, berries and nuts make up a large part of their diet, but they also like corn, orchard crops, insects and honey.

In fall, they can gain up to two pounds of body weight per day and will travel great distances in order to find food to store up fat reserves for winter.

Denning usually occurs between October and early January, depending on weather, food availability, sex and age. Warm spells will bring them out for brief periods.

They walk with a flat-footed shuffle or a bounding gallop. When running full speed they can reach up to 30 mph, and make 12 to 15 foot jumps.

The bear walks on the entire foot similar to man and the track resembles human footprints. Both front and hind feet show the marks of five claws. The front foot measures an average of 3 X 4 inches and the hind foot 4 X 7 inches.



Cardinal

Cardinalis cardinalis

When English settlers arrived on the shores of Jamestown, they gave it the names Virginia nightingale and carnation bird. Another common name is "redbird," and so popular did the bird become, that many states ultimately named it their state bird.

The cardinal ranges all over the eastern United States to the edge of the Great Plains and as far north as southern Ontario and the Great Lakes east.

While it is non-migratory, cardinals may wander extensively in winter, probably for the purpose of dispersal of the young, but possibly because of severe weather or food shortages. Anyone who stocks a feeder consistently in winter may be surprised to find a yard full of cardinals. They come to feeders regularly with a special liking for black oilseed sunflower seeds.

Cardinals are at home in a variety of habitats, including dense thickets and tangled near open areas, field edges, along streams, in open swamps and in park thickets.

Like all perching birds, cardinal footprints will show three toes forward and one toe back, but there are so many birds with a similar print that it is unlikely they could be specifically identified.



Bobcat

Lynx rufus

The bobcat is named for its short, 5 to 5½ inch "bobbed" tail. Bobcats weigh from 18 to 30 pounds, the females being smaller. They live in early mid-succession growth timber that has clearings along with dense thickets, hollow trees and logs, and rocky hillsides. The southern Piedmont region of Virginia has a relatively high abundance of bobcats.

Bobcats are very secretive and nocturnal, going about their business without human residents nearby ever knowing it. An adult male bobcat may have a range that encompasses 60 square miles, the females staying within a 5 to 15 square mile area.

They feed on rabbits, squirrels, rodents, a variety of ground-nesting birds, and occasionally deer, but mostly as carrion. Bobcats hunt in typical cat-like fashion, and are able to sprint at speeds of up to 30 miles per hour.

Front foot 1½ X 2 inches, four-toed alternate. Hind foot, 1¼ X 1½ inches and four-toed. Fifth toes don't show. Neither do the nail marks show. Stride to 14 inches. Tracks appear as a straight or dotted line, although it meanders. As they walk, the hind foot is brought forward and placed in the spot where the front foot was removed on the same side.



Chipmunk

Tamias striatus

The chipmunk is a small ground-dwelling squirrel with conspicuous lengthwise stripes on its back, sides and cheeks. It's about 5 to 8 inches long with a 3 or 4 inch tail, and weighs 2 to 5 ounces.

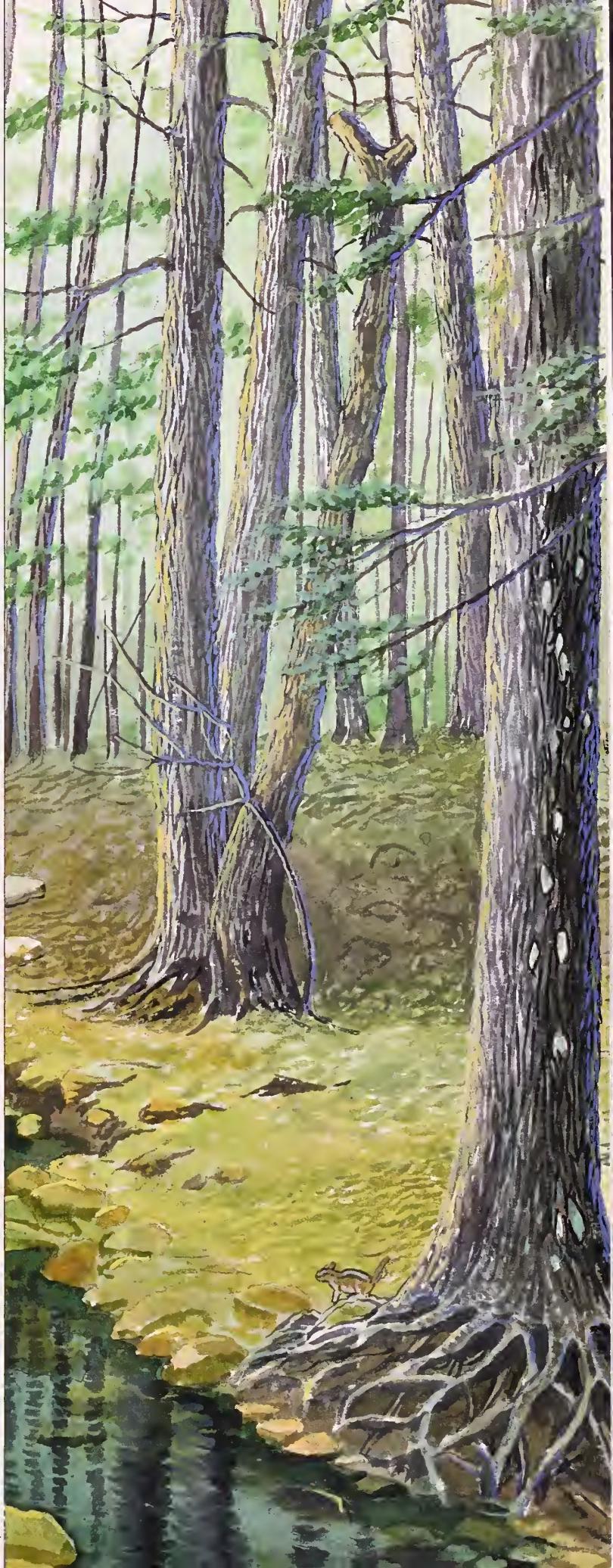
Chipmunks feed on all manner of seeds and dried wild fruits, insects, mushrooms, grains, and a variety of animal matter. It has internal mouth pockets which it uses to carry and store large quantities of food prior to winter. They can climb trees to get nuts, dogwood berries, crab apples and the like, and will store up to a half bushel of food in its burrow.

Normally they dig their burrows underground amid rocks or stone fences, in rocky ridges, or wooded banks. Around humans, it will dig under house, garage or shed foundations, cement patio slabs, or woodpiles.

Chipmunks prefer timber borderland, especially rocky hillsides around hardwoods, but they are commonly found in parks and suburban and city backyards. It emits a harsh bird-like chirping call.

Front feet 1/2 X 3/8 inches, five-toed, not together. Hind foot ¾ X 1¼ inches, five-toe, paired, spread to 2 inches.

©Spike Knuth





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Coyote

Canis latrans



The coyote is normally pictured as an animal of the western prairies. However, changes in the landscape have enabled it to move eastward to the point that they now occur in nearly all eastern states. Often it is described as the most cunning, tenacious and adaptable of all animals.

Coyotes resemble German shepherd dogs in looks, but with a bushy tail, and more pointed snout. They sometimes interbreed with dogs. The coyote weighs anywhere from 18 to 30 pounds. They walk, trot or gallop, running with tails down, which is a good identifying characteristic.

Their main foods are rabbits and rodents, but they will eat birds, insects, plant matter, carrion, pet food and will visit garbage dumps.

Front foot is $1\frac{3}{4} \times 2\frac{1}{2}$ inches, four-toed. Hind foot is $2 \times 2\frac{5}{8}$ inches, four-toed, with claws showing. Large outer toe prints on hind feet distinguish coyotes from other canines. Track is narrow and outside toes are more in line behind the inside toes than a dog. Walking steps are about 13 inches apart; 22 inches when it trots; and can leap up to 10 feet at a gallop.

Gray Fox

Urocyon cinereoargenteus



The gray fox weighs anywhere from 5 to 14 pounds, and measures 35 to 44 inches in length, with a bushy tail of 11 to 15 inches long. It has a preference for wooded and brushy areas as opposed to the red foxes liking for open country, and it is an excellent tree climber.

Gray foxes are shyer than the red fox and are mainly nocturnal, although they will venture forth in daylight at times. Males tend to travel more widely. When on the run, they have been clocked at up to 26 mph in short sprints. Their main food consists of rabbits and rodents with about a third being made up of birds, insects, plants, carrion, other mammals and occasionally poultry.

They walk, trot or gallop. When running at full speed they have a rocking-horse motion with its tail carried curved into an arch.

Front foot $1\frac{1}{2} \times 2$ inches, four-clawed. Hind foot $1\frac{1}{4} \times 1\frac{3}{4}$ inches, four-clawed, alternate. Toe marks rounded like that of a dog, as contrasted to narrower toe marks of a red fox. Stride from 6 to 16 inches. Tracks appear as a dotted line in the snow.

Dog

Canis familiaris

Dogs have been associated with man since the beginning of history in most parts of the world. Today there is a wide array of types and sizes all originally bred for different purposes. Some were bred for hunting, some as beasts of burden, some for tracking and some for protection.

Like cats, dogs that run wild can be destructive to other wildlife. Once loose even the most peaceful house dog will revert to its wild side and tend to run in packs. In northern areas with abundant snow they will "run" deer.

They also catch ground nesting birds and small mammals. In the wild, dogs will eat about anything including carrion.

Front foot $2 \times 2\frac{1}{2}$ inches, four-clawed. Hind foot $2\frac{1}{2} \times 2\frac{3}{4}$ inches, four-clawed, alternate (fox hound). The pattern of tracks is irregularly arranged.



Gray Squirrel

Sciurus carolinensis

The gray squirrel, Virginia's most common squirrel, is normally gray in color with a wash of yellow brown and whitish belly. There are sometimes different color phases from very light to almost black. It has a bushy tail, measuring 14 to 21 inches long, and weighs $\frac{3}{4}$ to $1\frac{1}{2}$ pounds.

Squirrels nest in tree cavities or build nests out of twigs and leaves up in tree branches. They will seldom range farther than 200 yards from their home. Come winter when the trees lose their leaves the nests can be plainly seen high in the branches.

Nuts, seeds, wild fruit, tree flowers and corn are preferred foods. They will come to bird feeders, usually uninvited, where they feed on sunflowers seeds. Their habit of burying nuts and often neglecting to retrieve all of them, often results in reseeding of trees.

Front foot $1 \times 1\frac{1}{2}$ inches, five-toed, (4 clawed and one a knob-like thumb) paired. Hind foot, $1\frac{1}{4}$ inches $\times 2\frac{1}{2}$ inches, five-toed, paired; $3\frac{3}{4}$ inch spread. It can leap 5 feet. The squirrel leaves clearly marked nail prints in his tracks. Being a tree-climber, it places its front feet side by side when it hops or jumps.



Eastern Cottontail

Sylvilagus floridanus

The cottontail, is found everywhere in the state. Its home range is from one to five acres. It prefers open brushy fields, forest edges, hedgerows and fallow fields, but it is right at home in parks and suburban yards with suitable cover.

Easily recognized by their long ears, large hind legs and little "powder puff" tail, they weigh 2 to $3\frac{1}{4}$ pounds. During most of the year they reside in thick cover in what is called a "form," which is a hollow or depression in the ground vegetation, packed down from sitting in it.

They are mostly nocturnal, feeding on a wide array of herbaceous and young woody plants and vegetable crops in yards and in orchards. When running from danger they are quick and often zig-zag to elude a predator. They are prey for almost all carnivores.



The two long marks of the hind feet, placed well ahead of the rounded prints left by the front paws are the unmistakable sign of the cottontail. Front foot, 1×1 inch, paired or not. Hind foot $1\frac{3}{4} \times 3\frac{1}{2}$ inches, paired, but can appear as long as $4\frac{3}{8}$ inches long in snow. Spread of 5 inches and leap to 7 feet.

illustrations by Willy Wilmot

Great Blue Heron

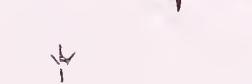
Ardea herodias

One of the most common and recognizable birds of our coasts, marshlands, swamps, rivers, lakes

and ponds is the great-blue heron. It is often misnamed a blue "herring," or a blue "crane." A herring of course is a fish, and cranes fly with neck outstretched like swans. Herons draw in their necks, curling them back over their "shoulders," with legs stretched out behind. Its voice is a hoarse guttural "squawk."

They fly on wide wings with slow, graceful wing beats, almost as if in slow motion. They always appear larger than they really are, although they do stand up to 4 feet tall, and have a wingspan of up to 6 feet. It's just that there isn't much to them as far as body weight.

Great blue herons can be seen almost anywhere there is fresh or salt water that provides them with food such as fish, frogs, crabs, small birds and rodents. You may see them mornings and evenings as they fly to or from their feeding spots



They leave a large three-toed print in mud along creek banks, or mudflats at low tide as they stalk along the edge of the water for prey.

House Cat

Felis catus

Cats are represented by many breeds. Their average length is about 2½ feet, including about a 7-inch tail. The average cat measure about 9 inches at the shoulders.

Many cats now roam freely and are blamed for catching and killing thousands of birds annually. However, they are also credited with keeping rodent populations in check. They catch their prey by surprise through stalking and ambushing.

Birds, rodents, squirrels, rabbits and insects make up a good part of their naturally caught diet. They are mostly nocturnal, and have excellent eye sight being able to see with little light.

Front foot $1\frac{1}{4}$ X 1 inch, four-toed, alternate. Hind foot 1 X 1, four-toed, alternate (a fifth toe is higher up on the leg and does not show in tracks); 6 inch stride. Tracks are similar to a bobcat except much smaller in size and seldom found in remote woodlands. They have sharp retractable claws.



Illustrations by Willy Wilmoth

Raccoon

Procyon lotor

The raccoon averages 15 to 24 pounds. Their masked face and bushy ringed tail are distinctive. Raccoons favorite haunts are along streams and rivers, at the edges of swamps and marshes, especially if bordered by large hardwood stands and near agricultural areas.

Raccoons are known for their habit of wetting its food, but not to wash it. Apparently they lack saliva plus wetting its feet makes them more sensitive and enables them to feel the food as they handle it.

They feed on crayfish, snails, insects, wild fruits, corn, other crops and can be a nuisance in uncovered garbage cans and dog food trays set outside. Most of its foraging and prowling is done at night.

They look hunch-backed when standing or moving about, because of its hind legs being longer than the front. As they walk they sway or roll from side to side.

Front foot $2\frac{1}{2}$ X 3 inches, five thin fingers. Hind foot $2\frac{1}{4}$ X $4\frac{1}{2}$ inches, five thin toes; 7 inch stride. Its long, slender feet, with naked soles, leave almost human, baby-like foot prints in mud. The woodchuck print, with which it is sometimes confused, is blunter and rounder than that of a raccoon.



Muskrat

Ondatra zibethicus

The muskrat is a stocky rodent with short legs. It varies in length from 17 to 25 inches and weighs from 2 to 4 pounds. Its hind feet are designed for swimming, being longer than the front feet and partially webbed. The front feet are equipped with long claws for digging.

Muskrats favor slow-moving or still water, but will live in water with some current. It is most numerous along coastal and inland marshes, sluggish rivers, ponds and lakes. They build a bulky dome-shaped lodge of marsh vegetation or burrow into banks of rivers and ponds.

The muskrat will eat clams, frogs and fish, but will also feed on vegetation in the form of roots of cattails, water lilies, bulrushes and other aquatic and emergent vegetation. In winter it will store willow shoots and other vegetation for forage.

Front foot $1\frac{1}{2}$ X $1\frac{1}{4}$ inches, four-toed. Hind foot, $3\frac{1}{2}$ X $1\frac{1}{2}$ inches, five-toed. Three-inch spread and 8 inch stride. Its dragging tail leaves a slender line and the toe print of the forefoot is characterized by widespread toes, similar to but smaller than an opossum. Tracks are conspicuous in mud showing a dragging tail.



Red Fox

Vulpes vulpes

Red foxes average about 8 to 15 pounds in weight. The north and European strain are stockier and larger than the native. The reddish-brown colors, along with pointed muzzle, long pointed ears and bushy white-tipped tails are distinctive.

The home range is about a mile when raising young, but it will range over wider areas if food is scarce. They favor fields, meadows and forest edges, especially adjacent to open lands. Burrows are dug in sunny hillsides, under logs or in open woods under brush.

Catlike in many ways, they feed mainly on rodents, rabbits, woodchucks, snakes, frogs, insects, earthworms, birds and wild fruits. Carrion is eaten in winter.



The "string-straight" characteristic of the fox's trail makes it easy to distinguish it from that of a small dog, which it otherwise resembles. Tracks in the snow look like a dotted line because hind foot placed directly over the tracks of the front foot. Front foot is $1\frac{3}{4}$ X 2 inches, four-clawed. Toe marks are elongated, narrow and rough. Hind foot is $1\frac{1}{4}$ X $2\frac{1}{4}$ inches, four-clawed. Its stride is from 8 to 18 inches in a straight line. Tracks are usually 12-14 inches apart when trotting.



Opossum

Didelphis marsupialis

Opossum are very rat-like in appearance. They live in woodland thickets, swamps, along streams, around farms and frequently in suburbs. Opossums live in tree cavities, fallen logs, rock piles, old squirrel nests, brush piles and old out buildings,

They are nomadic and nocturnal animals. Their hind feet are almost hand-like with a long flexible toe giving it the ability to grasp branches and can also use their tail for grasping. Opossums are excellent tree-climbers.

They'll eat a variety of vegetable and animal matter including insects, grubs, garbage, birds, small rodents, frogs, bird eggs and a wide variety of wild or cultivated fruits and berries. They will even visit the compost pile to feed on disposed of squash or melons.

Front foot measures $1\frac{3}{4} \times 1\frac{1}{2}$ inches with five toes and claw marks. Hind foot is $1\frac{1}{2} \times 2\frac{1}{2}$ inches, with four toes and "opposing thumb." The opossum track is easy to recognize with its fan-shaped, widely-separated toes and tail mark. They walk with deliberate steps but tend to meander. If disturbed they move off at a fast walk using its tail to maintain balance by waving it in circles.



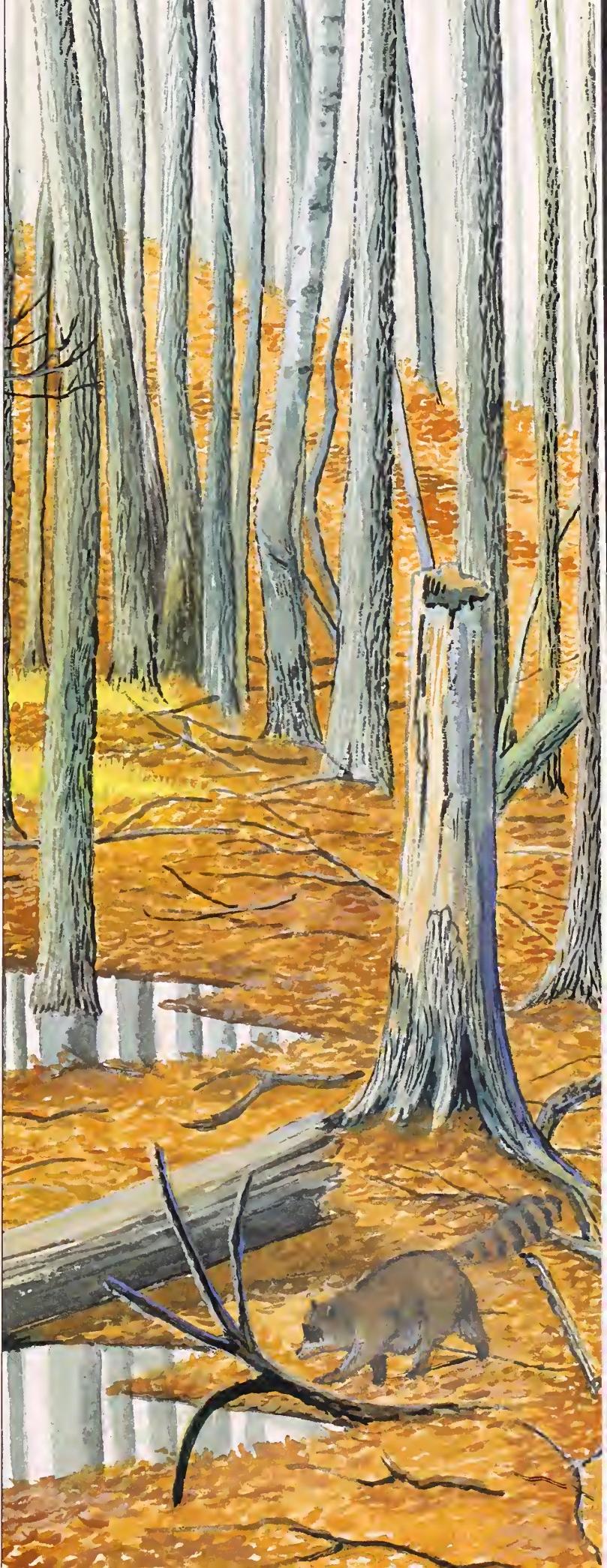
River Otter

Lutra canadensis

The river otter is about 4 to 5 feet long and weighs 10 to 25 pounds. It lives along streams, rivers, swampy flowages, marshes and lakes, usually those bordered by woodlands. They feed mainly on fish, crayfish, frogs, clams, snails, turtles, snakes and aquatic insects.

Their legs are short and on land they travel with a loping or bounding gait, normally traveling along water courses. They also slide on snow, or muddy and grassy banks. During a season, a family of otters may remain in a range of only 3 to 10 miles, but otters have been known to range over 50 to 100 miles of shoreline. While mostly nocturnal, they will occasionally come out during the day.

Front foot $2\frac{1}{2} \times 3\frac{1}{2}$ inches, five padded toes and claws conspicuous. Hind foot, 3×3 inches, hair-padded, paired. In snow or mud an otter's feet leave round tracks with distinct toe marks, almost in a straight line with a tail mark that undulates from side to side so that it is usually to the left and then to the right of those paw marks. Its front feet touch the ground first with the hind feet coming down into the same spots.



Striped Skunk

Mephitis mephitis

The striped skunk has been tagged with the Greek name "mephitis," meaning "bad odor." Its name and reputation come from the smelly, acidic liquid, secreted by a pair of glands under its tail. They can spray 5 to 10 feet with great accuracy and as far as 20 feet. The pungent odor with gaseous-like qualities is a common smell on spring evenings when skunks roam, or late-summer evenings when mama skunk leads her young on feeding forays, and they come in contact with dogs, cats, other animals or humans.

They weigh 3 to 10 pounds and measure up to 30 inches long. Skunks are mainly nocturnal animals that tend to favor forest edges, brushy field corners and hedgerows, especially in agricultural areas. They make their homes in old rabbit or groundhog burrows, in or under old sheds, outbuildings or other similar structures. Their range is anywhere from 1 to 5 miles. The main foods of skunks are grubs, insects, mice and snakes,

Front foot, $1\frac{3}{4}$ X $1\frac{1}{2}$ inches, five-toed, claws showing. Hind foot shaped like a baby's foot, $1\frac{1}{8}$ X $2\frac{1}{2}$ inches, five toes, with no claws showing. The distance between tracks while walking is 3 inches. Walks, canters or gallops.



illustrations by Willy Wilmeth

Wild Turkey

Meleagris gallopavo

The wild turkey is a bird of mixed hardwoods of oak, maple and beech, with a smattering of dogwood, laurel, holly, rhododendron and grape, as well as mixed stands of pine. During the fall and winter, turkeys travel and feed in family groups which are normally made up of the spring broods of one or more adult hens.

Young toms, called jakes, weigh 10 to 14 pounds and larger than an adult hen. Mature toms weigh 18 to 21 pounds, mature hens half that.

Their diet is about 95 percent vegetable matter including acorns, beech-nuts, grapes, berries, grasses, clovers and honeysuckle, with the remainder being insects such as grasshoppers.

Foot prints of toms are usually larger than 3 inches and toes are usually spread at a wider angle than the hens. Hens are usually smaller than 3 inches. The hind toe of the turkey is smaller and elevated so it doesn't normally show in its track. A gobbler's stride measures 12 to 14 inches while the hen's is only 8 to 10 inches.

The droppings of both sexes are greenish-white when fresh. Gobbler droppings are fairly straight with a hook at one end; hen droppings are looped, spiral or round.



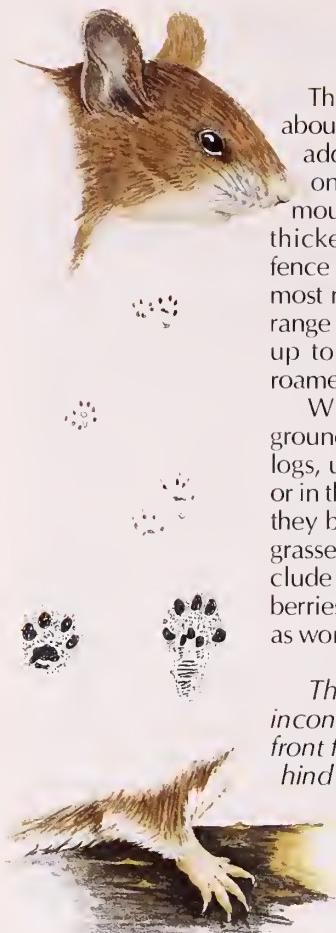
White-footed Mouse

Peromyscus leucopus

The white-footed mouse measures about $5\frac{1}{2}$ to $8\frac{3}{8}$ inches long with the tail adding $2\frac{1}{4}$ to 4 inches. They weigh only $\frac{1}{2}$ to 1 ounce. The white-footed mouse lives mainly in wooded areas, thickets, brushy edges of woodlands, fence rows and around old buildings. Like most rodents it is mainly nocturnal. Their range is about $\frac{1}{2}$ to $1\frac{1}{2}$ acres, only rarely up to 10 acres, with males being the roamers.

White-footed mice live in underground cavities, under tree roots, hollow logs, under stumps or boards, amid rocks or in the burrows of other mammals. Here they build a nest bed of shredded wood, grasses and animal hair. Main foods include insects, nuts, seeds, grains, fruits, berries, fungi and other vegetation, as well as worms, bird eggs and young birds.

They have four clawed toes and an inconspicuous nailed thumb on each front foot, and five clawed toes on each hind foot. Three inch spread between the prints when hopping. Hind foot $\frac{3}{4}$ inches.



Woodchuck

Marmota monax

The woodchuck is a common sight sitting up on its hind legs and nibbling on some kind of plant material, close to the road's edge. Its normal gait is a slow walk, but it may lope or gallop when alarmed. They are somewhat solitary with their range covering only about a quarter to a half-mile. They measure 16 to 27 inches long and weigh 4 to 14 pounds. Their body is equipped with short powerful legs; a bushy, flattened tail and a broad head with gnawing teeth.

They are capable of digging and moving hundreds of pounds of rock and subsoil as they dig burrows in fields, gullies, fence rows or under large tree roots. These many burrows often serve as shelter and homes for other animals. Woodchucks eat roots, berries and all manner of herbaceous plants, including garden crops such as bush beans. When alarmed they emit a shrill whistle giving rise to another nickname—"whistle pig!"



Has four clawed toes and small thumb with a flat nail on each front foot, and five clawed toes on each hind foot, which is 2 inches long. When walking it puts one front foot just in line behind the other.

Make a Track Cast

- Carefully brush away any sand or debris from the track. Optional: spray the inside of the track with shellac or clear plastic.
- Make a ring that is open on both ends and will fit around the track as a form for the mold. The ring can be made of stiff cardboard, plastic, or even a tuna can with top and bottom removed. Place the ring over the track and firmly press into the ground.
- Mix plaster of Paris with water in a plastic cup or other container, according to package directions. A consistency of thick pancake batter works best for cast-making. Stir briskly and
- pour the "batter" quickly into the ring, as the plaster will begin to set in a couple of minutes.
- Fill the ring with the plaster mixture at least two-thirds of the way full, or all the way to the top if desired. Allow 12 to 24 hours for the cast to harden completely (time depends on weather and humidity). Cast may not harden properly if track is in very wet mud.
- When the cast is hard, remove the ring and clean away any dried mud or sand on the bottom of the cast with a soft toothbrush. The result is a raised negative of the track.



White-tailed Deer *Odocoileus virginianus*

Once a rare sighting, they are now common, even in suburban backyards. The whitetail population in Virginia is estimated to be about 900,000. The mixture of forest and cropland, lumbering and farming has created ideal habitat for deer.

A healthy adult buck will weigh 175 to 200 pounds. The size of the antlers is dependent on the buck's diet, not its age. Adequate browse containing the needed calcium and phosphorus help to produce a good rack.

Bucks are in top condition as the rutting season peaks about mid-November. Breeding takes place in November and December. As fall turns to winter, the deer acquire a thick coat of hair and turn darker brownish-gray.

Primarily nocturnal feeders, they come out at dusk, staying until dawn before going to bed down. Among its favored foods are leaves, acorns, apples, corn, soybeans, peanuts, strawberries, greens and other vegetable crops.

Deer prints are easily identifiable by two-parted hoof marks, roughly 2 X 2½ inches in size. The hoof prints of both sexes are indistinguishable when of the same size. Deer tracks are sharper pointed than those of domestic hooved animals.



Learning More...

The Encyclopedia of Tracks and Scat, by Len McDougall; c. 2004, The Lyons Press, 448 pp. [very thorough and detailed, good for the more experienced outdoor enthusiast].

A Field Guide to Animal Tracks, 3rd edition (Peterson Field Guide Series), by Olaus J. Murie; c. 2005, Houghton-Mifflin Books, New York; 448 pp. [a traditional but in-depth field guide with black-and-white track drawings that include measurements; entries are organized by animal families].

- *Mammal Tracks and Sign: a Guide to North American Species*, by Mark Elbroch; c. 2003, Stackpole Books, Mechanicsburg PA; 792 pp. [excellent and comprehensive].
- *National Audubon Society Pocket Guide to Familiar Animal Tracks* (The Audubon Society Pocket Guides), by National Audubon Society; c. 1993, Knopf Books; 192 pp. [a beginners' guide with nice animal photos but only basic track drawings].
- *Tracking and the Art of Seeing: How to Read Animal Tracks and Sign*, 2nd edition, by Paul Rezendes; c. 1999, Harper-Collins Publishers Inc., New York [behavior and habitat of common mammals and birds, with information on the finer points of identifying tracks, trails, nests, droppings and other signs; excellent full-color photos].

The Virginia Fish and Wildlife Information Service is a great way to learn more about Virginia's wildlife species. This educational and informative database can be accessed through the Virginia Department of Game and Inland Fisheries' Web site at: <http://www.dgif.virginia.gov/wildlife/vawildlife/index.html>.

Note: *Animal Tracks* has been designed to be used as reference cards that can be cut out. Additional copies of this issue are available for \$2. Order by making check payable to *Treasurer of Virginia* and mail to Virginia Wildlife, P.O. Box 11104, Richmond, VA 23230-1104.



Virginia Department of Game and Inland Fisheries
P.O. Box 11104, 4010 West Broad St, Richmond, VA 23230-1104
(804) 367-1000; (804) 367-1278 (V/TDD)

VIRGINIA WILDLIFE OUTDOOR CATALOG



photos by Dwight Dyke



Fleece Knee Blankets

These rollup blankets are 100% polyester and measure 50" x 60." Each has our *Virginia Wildlife* logo. Great to curl up with in the old rocking chair or keep one in the car. Available in Red, Grey and Black.

Item #VW-132 \$19.95 each



2005 Limited Edition Virginia Wildlife Collector's Knife

This year's knife has been customized for us by Buck Knives and has a cut out blade of a hunter and his dog. Each knife is individually serial numbered and comes with a distinctive rosewood handle and gold lettering. This custom knife comes in a decorative solid cherry box with a hunting scene engraved on the cover.

Item #VW-405

\$75.00 each



Sheath Knife

This attractive and functional knife has walnut handles with a 3½-inch blade and is approximately 8 inches overall. Made for us by Bear Cutlery, each knife is engraved with *Virginia Wildlife* on the blade and comes with a leather sheath.

Item #VW-404

\$29.95



2004 Limited Edition Virginia Wildlife Collector's Knife

This knife has been custom made for us by Buck Knives. Every facet of this knife indicates that it will be a treasured collectable. From its distinctive handle with gold lettering and brass bolsters to the knife blade engraved with the Department's logo, each knife is individually serial numbered and comes in a decorative, custom wood box with a waterfowl scene engraved on the cover. Limited quantities still available.

Item #VW-403

\$85.00 each



New Collectable Five Piece Coaster Set

Made of solid cherry, this attractive set of 4 wooden coasters is packaged in a wooden box. The box and each coaster have been custom engraved with a deer image.

Item #VW-521

\$20.95



VW-503



VW-502

Buckles

Our bass and duck belt buckle collection is crafted of solid pewter with *Virginia Wildlife* engraved at the bottom. Each buckle comes in a custom gift box with the VDGIF distinctive logo displayed.

Item #VW-502 Bass VW-503 Duck \$9.95 each



VW-500

VW-501

□ Limited Edition Collector's Plate

The first in a series of *Virginia Wildlife* limited edition collector's plates. This collectable is titled "Winter Comfort" and is taken from an original artwork by Bob Henley. Each plate is individually serial numbered and has the year of issue on the back.

Item #VW-500 \$22.95

□ Limited Edition Steins

The first in a series of *Virginia Wildlife* limited edition steins. This companion piece to our collector's plate shown above is also individually serial numbered and has the year of issue on the back.

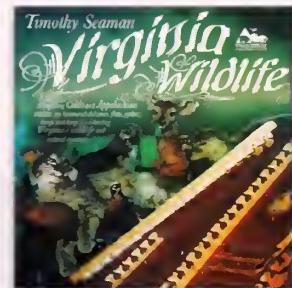
Item #VW-501 \$16.95



□ Bear With Fish

Our bear has caught his fish and is not about to let it get away. This collectable bear is approximately 12 inches high.

Item #VW-219 \$10.00 each



Duck With Duckling □

This colorful collectable duck and duckling is available in limited quantities.

Item #VW-519 \$9.95 each.



VW-519

VW-518

Virginia Wildlife Collection of Throws



VW-509



VW-511



VW-507



VW-513



VW-514



VW-520



VW-515



VW-516

Each throw is approximately 52" X 69" and
is triple jacquard woven of 100% cotton.
Machine washable. \$39.95 each
Please specify:

Winter Songbirds	Item #VW-507
Down From The North	Item #VW-509
Fall Buck Throw	Item #VW-511
Bend in the Road	Item #VW-513
River Ducks	Item #VW-514
Gallant Tribe	Item #VW-515
The Perch	Item #VW-516
Waiting at Crow Creek	Item #VW-520



Book Clock

This decorative book-style clock is crafted of solid cherry wood, beautifully engraved with a vivid wildlife scene on the book side of the clock. The clock face is of Old World décor, a collector's delight. Clock is 5 1/2" X 8 1/2" when opened.

Item #VW-303

\$29.95 each



Mouse Pad / Coffee Cup Set

It will be hard not to stare at this lifelike picture of a fawn as you sit at your computer and drink your favorite beverage.

Item #VW-223

\$14.95

For the Art Lover or Collector



VW-222 Fawn



VW-222 Blue Birds



VW-211 Cardinal



VW-211 Turkey



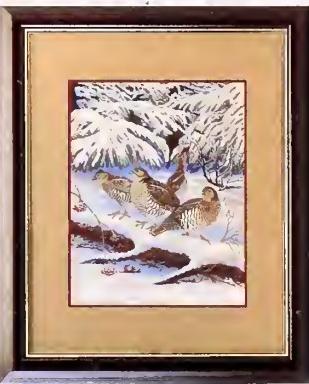
VW-222 Ponies



VW-222 Female Cardinal



VW-211 Deer



VW-211 Grouse

New in 2005, Four New Virginia Wildlife Prints

Each 16"x 20" print is custom framed and has been selected from award winning photographs or original artwork.

Item #VW-222

\$35.95 each

Please specify:

Blue Birds - original artwork by Spike Knuth

Ponies - award winning photo by Clarissa Hull

Fawn - award winning photo by Ruimin Wang

Female Cardinal - award winning photo by Douglas Graham

Framed Prints of Our "Winter in Virginia" Original Paintings.

Each print is custom framed and matted. These attractive prints will brighten any room and are available for a limited time.

Item #VW-211

\$35.95 each

Please specify: Cardinal, Turkey, Deer or Grouse



2005 Limited Edition Collector's Plate

Our second in a series of *Virginia Wildlife* limited edition collector's plates. This collectable is titled "Cardinal in the Pines" and was taken from an award winning photo by Douglas Graham. Each plate is individually serial numbered and has the year of issue identified on the back.

Item #VW-522

\$22.95

Limited Edition Steins

Our second in a series of *Virginia Wildlife* limited edition steins. This companion piece to our Collector's Plate shown above is also individually serial numbered and has the year of issue identified on the reverse side.

Item #VW-523

\$16.95



©Dwight Dyke



From the Ladies Pulsar collection. This attractive watch has a gold tone bracelet with gold tone hands and markers on a champagne dial. Water resistant.

Item #VW-302

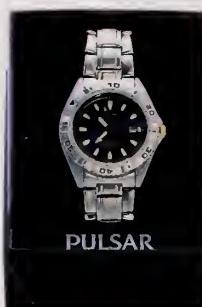
Our Virginia Wildlife collection of Pulsar Watches by Seiko

Your choice \$59.00 each or 2 for \$100.00



From the Pulsar Nightfall Line. TiCN plating, gold tone crown, hands and markers and black dial. Water resistant.

Item #VW-301



Man's Wrist Watch
Stainless steel bracelet, luminous hands and markers, and blue sunburst dial. One way rotating elasped timing bezel. Water resistant.

Item #VW-300



VW-134

VW-133

Introducing Our New Virginia Wildlife Knit Caps

Each cap is made of 100% acrylic. \$11.95 each

Item #VW-133 Orange with Deer

Item #VW-134 Light Grey with Eagle



NEW Virginia Wildlife Hooded Sweat Shirts

These attractive shirts are a 50/50 cotton polyester blend with an embroidered logo and a full zipper front. Sizes : Med., Large, X-Large and XX-Large.

\$21.95 each

Item #VW-127 Black w/Eagle

Item #VW-128 Navy w/Duck

Item #VW-129 Grey w/Deer



Fleece Vests

New to our product line for 2005 these attractive vests are 100% polyester and carry the Virginia Wildlife logo. Available in Red, Black, and Grey. Sizes: Med., Large, X-Large and XX-Large.

Item #VW-131

\$24.95

NEW Outdoor Zipper-Front Vest

For the outdoorsperson it comes with a mesh lining and has 5 pockets. Natural color with a Trout embroidered above the pocket. Available in Sizes: Med., Large, X-Large and XX-Large.

Item #VW-130 \$45.95





Virginia Wildlife T-Shirts

TShirt with eagle, available in Black, Navy and Teal
Item #VW-100 \$12.95 each



VW-109

VW-110

VW-111

VW-104
VW-103

Each shirt is 100% cotton and embroidered with the *Virginia Wildlife* logo and a largemouth bass or white-tailed deer. When ordering please specify size (Med., Large, X-Large or XX-Large) and color (Grey, Navy, Tan, Teal or Black). \$12.95 each

Item #VW-103 Largemouth Bass
Item #VW-104 White-tailed Deer

Denim Shirts

100% cotton, pre-washed, long-sleeved denim shirts with embroidered logo. Available in sizes Med., Large, X-Large and XX-Large.

Item #VW-109 Cardinal
Item #VW-110 Eagle
Item #VW-111 Trout

The price listed in the September 2005 issue of *Virginia Wildlife* was incorrect.
The actual price is \$19.95 each.



VW-107

VW-106

VW-108

VW-105



VW-105

Virginia Wildlife Sweat Shirts

These attractive shirts are a 50/50 cotton polyester blend, with an embroidered logo. Available in sizes Med., Large, X-Large and XX-Large. Please specify size, color and logo.

\$17.95 each

- | | |
|----------------------------------|---------------|
| Eagle in Black, Navy and Khaki | -Item #VW-105 |
| Trout in Grey, Navy and Khaki | -Item #VW-106 |
| Deer in Black, Grey and Khaki | -Item #VW-107 |
| Cardinal in Black, Navy and Rose | -Item #VW-108 |



Virginia Wildlife Caps

Our caps feature three unique designs. Each cap is 100% cotton, size adjustable and embroidered with the *Virginia Wildlife* logo.

\$11.95 each

High profile - deer - Item #VW-118
 Low profile - deer - Item #VW-117
 High profile - bass - Item #VW-116
 Low profile - bass - Item #VW-115

High profile - Camo with Black Letters - Item #VW-113
 High profile - Blaze Orange - Item #VW-114
 High profile - Camo with Tan Letters - Item #VW-112
 High profile - Virginia Wildlife - Item #VW-120
 Low profile - Virginia Wildlife - Item #VW-119

Virginia Wildlife Caps

Our *Virginia Wildlife* hats are available in 100% cotton or in denim and are size adjustable. These attractive hats have been embroidered with our *Virginia Wildlife* logo and feature either an eagle or trout for the wildlife and fishing enthusiasts. Hats are available in high profile. Check out our new low profile denim hats. These hats look great with our new denim shirts. \$11.95 each.

High profile -
 Navy with Trout - Item #VW-121
 Black with Eagle - Item #VW-122 Low profile - Denim with Eagle - Item #VW-123
 High profile - Denim with Trout - Item #VW-124



NEW *Virginia Wildlife* Caps for 2005

Our new caps are made of blue denim with a black suede bill and feature either an eagle or a duck.

\$11.95 each

Item #VW-125 Eagle
 Item #VW-126 Duck

Please Allow 3 to 4 Weeks for Delivery

Item #	Name of Item	Qty.	Size	Color	Price	Total Price

Make checks payable to *Treasure of Virginia* and mail to:
 Virginia Wildlife Catalog, P.O. Box 11104, Richmond, VA 23230-1104

For credit card orders call (804) 367-2569

Payment Method

check or money order VISA MasterCard

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Account Number

--	--	--

Expiration

Signature

Please Print Name

Daytime Phone Number

Subtotal

Shipping and Handling

7.25

Total

Shipping Information

Name

Address

City

State

ZIP



2005 Outdoor Calendar of Events

December 3: Generation Deer Hunting Workshop for Youth at Occoquan Bay Wildlife Refuge. Contact Lt. Dodson at 540-899-4169.

December 5: Deer Hunting Workshop for Novice Hunters at Occoquan Bay Wildlife Refuge. Contact Lt. Dodson at 540-899-4169 □

Calling All Online Hunters and Anglers

Looking for that perfect holiday gift? With just a click of the mouse you can receive Jack Randolph's *Virginia Freshwater Fishing and Hunting Report* each week. This statewide online news report covers freshwater fishing and hunting throughout Virginia. Besides reporting on the fishing conditions and notable catches, it also provides valuable fishing tips for catching Virginia's freshwater fish. Readers become familiar with personalities at each location, who provide helpful information. In addition to the detailed freshwater report, Jack includes two of his most recent newspaper columns covering salt and freshwater fishing, all types of hunting tips, and national items of interest to sportsmen and women around the country.

If you're looking for current hunting and fishing information then a subscription to Jack's *Virginia Freshwater Fishing and Hunting Report* is the perfect gift for you or a friend. The cost is only \$50 per year. For more information or to subscribe, write to: Jack Randolph at 304 Nottingham Drive, Colonial Heights, VA 23834. □



In Celebration of National Hunting & Fishing Day

The Virginia Department of Game and Inland Fisheries Wildlife and Fisheries Divisions, in conjunction with the Outdoor Education Program, celebrated National Hunting & Fishing Day by conducting a series of workshops on Saturday, September 24, 2005, at the C. F. Phelps Wildlife Management Area.

The day started with a fishing workshop, conducted by fisheries biologist John Odenkirk, teaching kids and adults basic fishing techniques. Participants also had the opportunity to catch channel catfish, largemouth bass, bluegills and green sunfish.

Participants then were treated to a squirrel hunting workshop, taught by wildlife biologist Ron Hughes, who discussed squirrel biology and hunting techniques. One of the highlights was a video on how to skin a squirrel in as little as two minutes, which was produced by the Department's video production team and hosted by game warden John Berry, who himself is an avid squirrel hunter.

Formal activities ended with a dove hunting workshop, wildlife biologist assistant Joe Ferdinandsen

talked about how to hunt doves. Participants finished up with a chance to practice their shooting skills on clay pigeons. Lieutenant David Dodson, of the Law Enforcement Division, supervised the shooters for safety and offered tips on wing shooting.

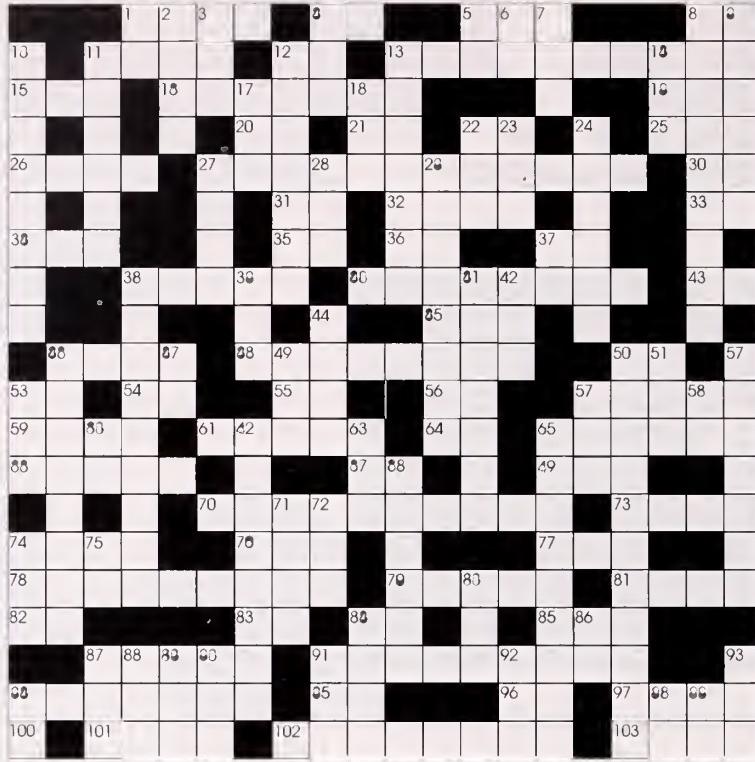
The Phelps Wildlife Management Area was open to a variety of activities later in the day. Fish were still waiting in the pond, squirrel season was open, and hunters preparing for upcoming seasons were using the area's sighting-in range. Many of the Hunting & Fishing Day participants, however, choose to put what they had learned at the workshops to good use by doing a little dove hunting at a managed dove field.

For those who did not choose to hunt or fish, the Rappahannock River Retriever Club was conducting a hunting retriever field test. This event was open to public viewing and featured a variety of retrieving dogs working in upland and wetland habitats. □



"Present nothing- it's for me"

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CROSSWORD

ACROSS

- Honey, Bumble (pl.)
- Morning time
- Cranberry field
- Leave
- Batteau propulsion
- VDGIF supervisory group (abbr.)
- Plant w/ white clusters
- Audio response unit (abbr.)
- Tuna
- Adult bear
- Living room (abbr.)
- Light (abbr.)
- Barium (chem. sym.)
- Initiate court action
- Food fish
- Large swallow
- Nitroglycerin (chem.)
- That is
- Buttock or rump
- Act
- Fish egg mass
- Each (abbr.)
- Near (abbr.)
- Agriculture (abbr.)
- Water travel vessels
- Food fish
- Hanging or suspended
- Dry foliage, cut and baled
- Tailless amphibian
- Quail
- Grain (abbr.)
- Other things (abbr.)
- Overtime (abbr.)

- Circle circumference (sym.)
- New York (abbr.)
- Trick, caper
- Tailless amphibian
- _____ moth
- Guard (abbr.)
- Daisy
- Monetary reward
- Blood type
- Make doily
- Tailed amphibian
- Snake wind up
- Combine form represent. idea in words
- Clear, free
- America (abbr.)
- Hawk
- Waterfowl
- Journey, voyage
- Railroad (abbr.)
- Animal tag info.
- Northeast (abbr.)
- Persistent behavioral trait
- Softwood tree
- Gelatinous bay animal
- Grosbeak family
- Avenue (abbr.)
- Professional nurse (abbr.)
- Overhang
- 2nd letter of alphabet
- Look after
- Arboreal amphibian
- Marsh bird

DOWN

- Branch office (abbr.)
- Napoleon's Waterloo
- Snake-like fish
- Automatic direction finder (abbr.)
- Exist
- Bovine family
- Predatory fish
- Woodchuck
- Tea, mint plant family
- Aromatic shrub w/ berries
- Game warden chase
- Stone-less juicy fruits
- Insect appendage
- Winding, snake mountain road
- Traditional Alaskan knife
- Sick
- Mammal, genus Chiroptera
- 100 sq. meter surface; form of be
- Birthwort family; spicy plant
- Larvae in changing stage
- Round edible seed
- Walking forward
- Arrival (abbr.)
- Poppy family w/ red juice
- Container
- Grasshopper
- Sight organ
- Large saltmarsh bird
- Saltwater flatfish
- Coupe style auto (abbr.)
- Opposite (abbr.)
- Old World Warbler
- Rights (abbr.)
- Bi-valve mollusk
- Ocean (abbr.)
- Surprise expression
- Pronoun
- Alternating electrical current
- Animal in 2nd year
- Sweet potato
- Turkey walking
- Fish appendage
- Stated inaccurately
- Sum
- Irregular (abbr.)
- Education (abbr.)
- One or some
- High mtn. granular snow
- 3rd person sing. "be"
- Social insect
- French holy woman (abbr.)
- Oak tree
- Terminate
- Clash
- To and _____
- Semi-rigid polymer
- Air rifle shot size
- Basaltic larvae w/ rough surface or stop drinking group (2 ltrs.)
- Roman numeral 6

Answers in February 2006.

Marika Byrd is a freelance writer, crossword aficionado, and member of the Virginia Outdoor Writers Association, Inc.

RECIPES

by Joan Cone

Squirrel Stew is Good For You

Our forefathers considered squirrel their staff of life and hunted them all year. This is how pioneers developed their marksmanship. Squirrels were used in stews cooked in large iron pots owned by every colonial family.

Meat from squirrels is firm, but tender, and resembles turkey dark meat. If you do not have squirrel for the following Brunswick Stew, then substitute pieces of chicken.

Menu

Pumpkin Dip

Brunswick Stew

Cranberry Orange Muffins

Dark Raisin Cake

Pumpkin Dip

$\frac{3}{4}$ cup reduced-fat cream cheese

$\frac{1}{2}$ cup packed brown sugar

$\frac{1}{2}$ cup canned pumpkin

2 teaspoons maple syrup

$\frac{1}{2}$ teaspoon ground cinnamon

Place first 3 ingredients in a medium bowl and beat with a mixer at medium speed until well blended. Add syrup and cinnamon and beat until smooth. Cover and chill 30 minutes. Serve with apple slices or ginger crackers. Makes 12 servings.

Brunswick Stew

$\frac{1}{4}$ cup flour

Salt and pepper to taste

3 squirrels, cut up

2 slices bacon, cut up

2 tablespoons butter or margarine

5 cups water

1 can (28 ounces) whole tomatoes, drained

1 medium onion, chopped

1 tablespoon packed brown sugar

2 medium potatoes

1 package (10 ounces) frozen lima beans

1 cup fresh or frozen whole-kernel corn

Equal amounts of corn starch and cold water, optional

In large plastic food storage bag, combine $\frac{1}{4}$ cup flour, salt and pepper and shake to mix. Add squirrel pieces, shake to coat and set aside. In a Dutch oven, combine bacon and butter. Heat over medium heat until butter melts. Add squirrel pieces and brown on all sides. Fry in two batches if necessary. Add 5 cups water, the tomatoes, onion and brown sugar. Heat to boiling. Reduce heat, cover and simmer until squirrel pieces are tender, 1 $\frac{1}{2}$ to 2 hours, stirring occasionally. Remove squirrel pieces and set aside to cool slightly. Cut potatoes into $\frac{1}{2}$ -inch cubes. Remove squirrel meat from bones and discard bones. Add squirrel meat, potatoes, beans and corn to Dutch oven. Heat to boiling. Reduce heat, cover and

simmer until potatoes are tender, 25 to 35 minutes. If stew is thinner than desired, blend corn starch and water in small bowl. Add to stew, stirring constantly. Heat to boiling and cook over medium heat, stirring constantly, until thickened and bubbly. Makes 6 to 8 servings.

Cranberry Orange Muffins

$2\frac{1}{2}$ cups flour

1 cup sugar

2 teaspoons baking soda

$\frac{1}{2}$ cup (1 stick) unsalted margarine, melted and cooled

2 large eggs or $\frac{1}{2}$ cup egg substitute

$\frac{3}{4}$ cup orange juice

1 tablespoon grated orange peel

1 cup dried cranberries

$\frac{1}{4}$ cup sugar and

$\frac{1}{2}$ teaspoon ground cinnamon, optional topping

In a medium bowl, stir together flour, sugar and baking soda. Set aside. In a separate bowl, stir together margarine, eggs, orange juice and orange peel. Stir liquid mixture into dry mixture until just combined. Stir in cranberries. If using topping, stir together $\frac{1}{4}$ cup sugar and cinnamon in a small bowl. Spoon batter into 12 paper-lined muffin tins. Sprinkle topping on top, if desired. Bake in a preheated 350° F. oven for 20 to 25 minutes or until lightly browned and a toothpick inserted near the center comes out clean. Makes 12 muffins.

Dark Raisin Cake

$\frac{1}{2}$ cup sherry

$\frac{1}{4}$ cup brandy

2 cups seedless raisins

$\frac{1}{2}$ cup softened shortening

$1\frac{1}{2}$ cups sugar

2 eggs

$1\frac{1}{2}$ cups applesauce

3 cups flour

$\frac{1}{4}$ cup cocoa

$1\frac{1}{2}$ teaspoons baking soda

1 teaspoon salt

1 teaspoon cinnamon

$\frac{1}{4}$ teaspoon cloves

In a saucepan, add sherry and brandy to raisins. Cover and simmer over low heat for 5 minutes. Remove from heat and let stand. Cream shortening and sugar until well blended. Beat in eggs and applesauce. Combine dry ingredients and add at once to batter and beat until smooth. Stir in prepared raisins. Spoon batter into a well-greased tube or bundt pan. Bake in a preheated 350° F. oven for 65 minutes or until done. Remove from oven and cool on rack. Dust top generously with sifted powdered sugar. Makes 10 to 12 servings. □

On The Water

by Jim Crosby



PFD Has a New Meaning

We all know what PFD stands for, don't we? Maybe not because the newest use of the acronym means "Pet Flotation Device." Yes, you read it right. Pet flotation device sales have soared in recent years as pet owners show a new concern for their "best friends."

Life jackets, especially for dogs, are becoming increasingly popular. While not essential safety gear, they function well as "dog overboard retrieval devices."

PFDs, that is the pet flotation devices—most often for dogs but also for cats and a few other animals—were among the hottest-selling items of boating equipment this year, according to BoatUS. "Even as this boating season winds down, there is every indication that sales are still wagging the dog."

And what will the Christmas season bring? How about a PFD for your best friend's pet? It could be just the right gift you have been looking for.

Life jackets are essential pieces of equipment for the boater, even required by law. But does a boater's dog really need a life jacket? Is it help or a hindrance in a "dog overboard" situation? And how do you select the proper PFD for your pooch anyway?

Maybe the first question to ask is whether a dog needs a life jacket in the first place. All dogs swim just fine, right? As a matter of fact, no they do not. Some dogs just don't take to the water well. Breeds with low body fat like Doberman pinschers and boxers can have trouble in the water.

Older dogs may tire easily and breeds prone to hip dysplasia may have difficulty swimming. Hypothermia can be a threat to some breeds of dogs when they are unduly exposed to cold water.

"No matter how well a dog can swim under supervision, any dog can drown," reports Georgia Molek, a veterinarian contacted through the American Animal Hospital Association. "All dogs can get fatigued, too, and/or become disoriented. I'm sure life jackets are a good idea but they should never replace caution and common sense."

Another challenge is the fact that dogs come in more sizes, shapes and anatomical configurations than humans. Their real-world use is different, too. Research has shown that pet PFDs serve as flotation aids, as well as, "dog overboard" lifting devices.

Let's talk about selecting the right PFD for your dog. BoatUS testers found that fit is everything and the only way to insure a proper fit is to put the life jacket on the animal before buying. Checking the fit is also important to the way it supports the animal when suspended by the jacket. The animal's position in the water is important to how well the animal can swim wearing it. Many of the jackets have a strap or handle that can be used to lift the pet out of the water and back into the boat. This could be important as well because a wet animal is heavy, slippery and awkward to lift from the water.

If you are thinking about a PFD for your dog, talk to other boater's

who are also pet owners. And when you shop, remember that while size guidelines come with most jackets, based on BoatUS's testing, they strongly recommend that you take Rover in for "a fitting." Pet shops and marine supply stores should allow you to bring your dog in and try the vests. All BoatUS Marine Centers encourage shoppers to bring in their dogs, I understand.

Look at where the straps or other attachments contact the dog's body. In the wrong spot, these can make the dog miserable and could injure them. They may even try to chew them off.

Some of these devices are available in colors and patterns designed for high style but not necessarily high visibility although Ruffwear life jackets have strips of reflective tape on the back. If visibility is important, choose your color accordingly. A black jacket on a black dog is hard to spot, especially at night.

Based on their research, these tests and the experiences reported by BoatUS members, they think these life jackets should be considered valuable flotation aids, not essential life-saving devices. A pet life jacket will help your dog stay above water until rescued. Once you get the dog alongside, the handle could help you either retrieve the animal or lead it around to an area where it can re-board the boat on its own.

So, do dogs need life jackets? In the final analysis, only the dog's owner can make that decision. After all, this is one case in which you could be your dog's best friend. □



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